

Intro to Niagara 4.9

Brent Lowe – Sr. Product Manager

Niagara Framework: Always Evolving – 4.9

Niagara 4.9 brings exciting new features that continue to evolve Niagara's key tenets of visualization, rapid deployment, security, Edge, connectivity, certification and IT compliance.



Visualization

Tag Based Graphics
Video Framework &
Driver Update



Deployment

Edge Tools Updates
ACE for
Portable Niagara (EA)
Edge 10 ACE Support for IO-R



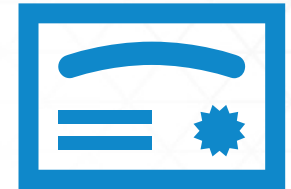
Security

SAML Internal IdP
Security History
Critical Support/Enhancements



Connectivity

MQTT Authentication
JSON Toolkit



Certification & Compliance

Expanded Support for
Databases, OS, and browsers

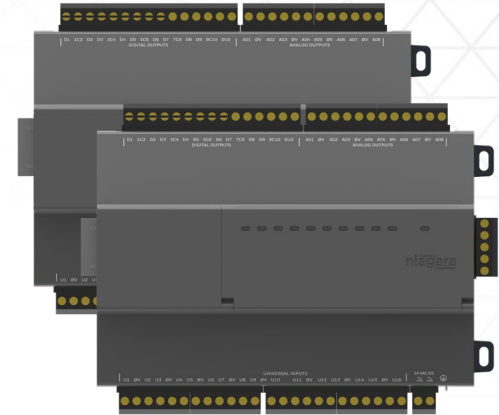
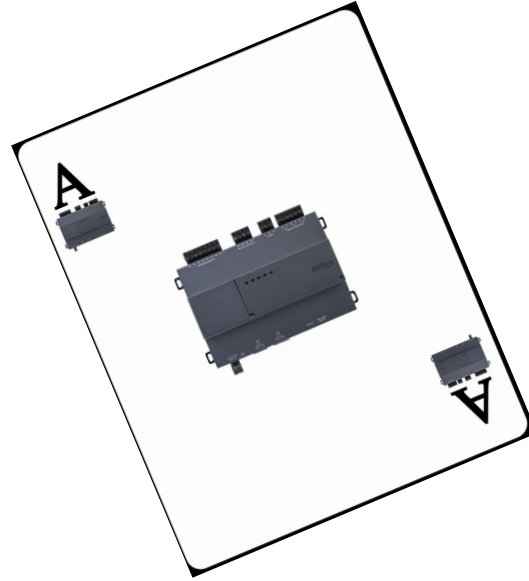
Integration with Video Surveillance



- Maximize the safety and protection of building assets and occupants
 - Video Surveillance can now be seamlessly incorporated into your Building Management System (BMS) with html-5 presentation.
- Stream live or recorded video feeds
 - Browser or Mobile Device Ready
 - Control PTZ Cameras
 - Incorporate Video into system graphics
- [Integrate Video with Niagara Alarm Console](#)
 - Display Video Feeds for cameras associated with Niagara Alarms
 - Pop-up Video on alarm
 - Go to PTZ Preset on alarm
 - Detect Motion / Occupancy
- Supported Integrations
 - Milestone Xprotect Professional+ and Corporate
 - Axis Cameras (Live Viewing)



Enabling Critical Control of Field Equipment



Updated to support 2 IO-R-34 modules and control of both onboard and remote IO with ACE, utilize Edge 10 in more projects and for more applications by enabling critical control of field equipment that require additional IO modules

Check out the free [Tridium University](#) module on ACE and IO-R

Supporting ACE on 3rd Party Hardware



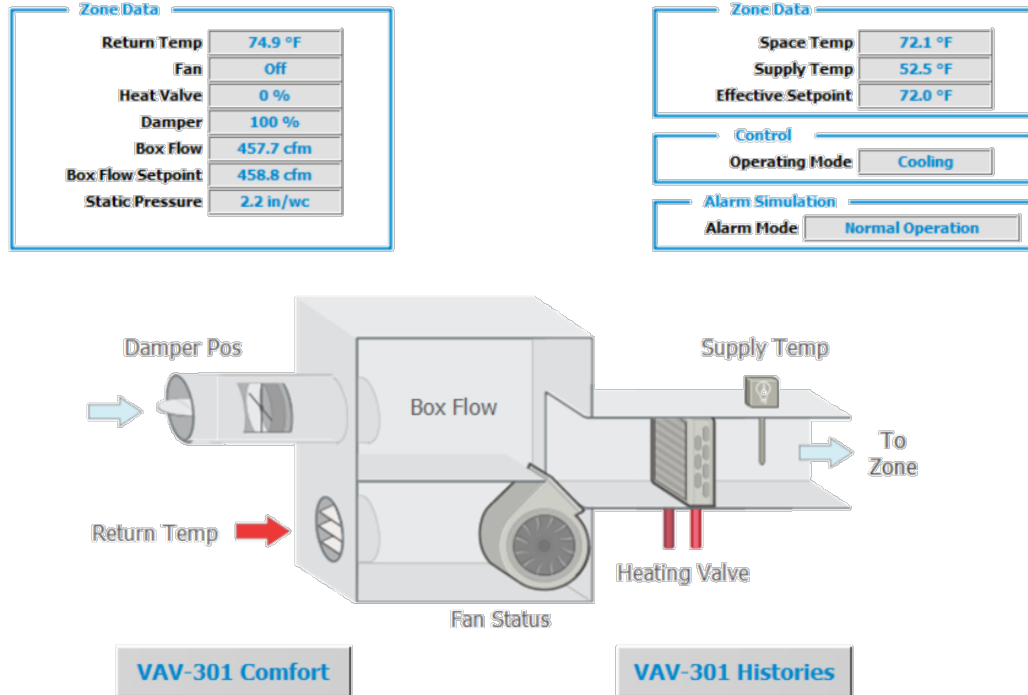
Originally released in 4.8 for Edge 10, 3rd party hardware vendors creating controllers powered by Niagara now have the option to include ACE on their platforms.

ACE offers deterministic time and fast startup to control times that enables critical control of field equipment and reduces downtime.

Look for announcements from your favorite Powered By Niagara controller as ACE is rolled out!

Early Access for Niagara Portability Customers

Enhanced Graphics with Tag Based Visualization



- Time spent re-creating graphics for a common application is money wasted
 - Create local graphics based on tags once, and then reuse for any other Niagara instance that features tags
- Tags and metadata are the future of building management
 - Conform with the latest building design specifications by using a graphical user interface (GUI) based entirely on tags
- Want to see more information?
 - Check out the [Tridium Talk](#)
 - Free [Tridium University](#) module.

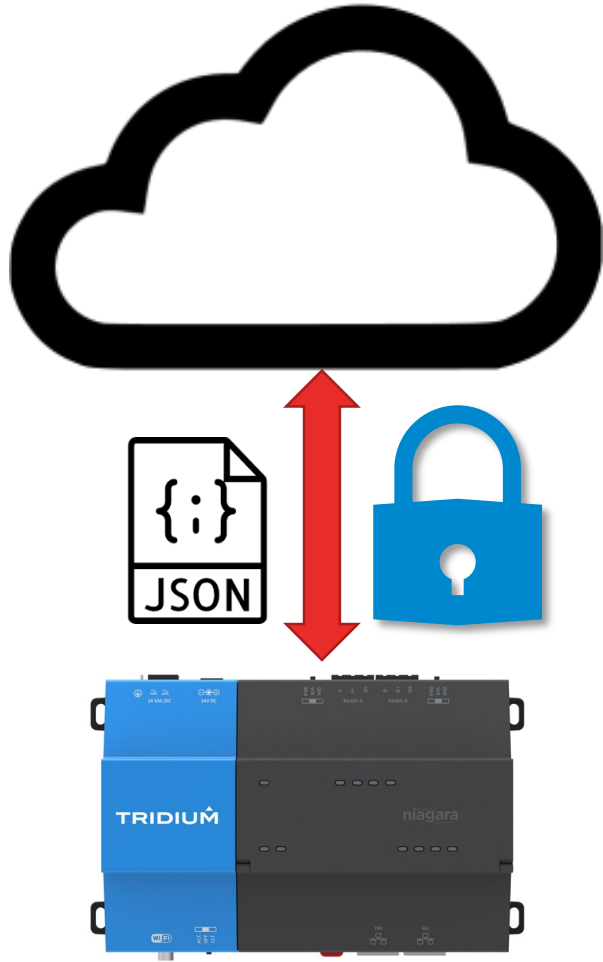
Securely Navigate Niagara Stations with Single Sign On

Niagara 4.4 introduced Single Sign On (SSO) with **your** Identity Provider (IdP).
Niagara 4.9 now features native IdP capability



- Reduce reliance on IT support infrastructure when accessing Niagara Stations via a browser
 - Users can now utilize Niagara as an IdP, instead of manually configuring and managing an external IdP
 - Improves the security posture of your stations by centralizing user credentials and management
- Improve user navigation and experience across Niagara infrastructure
 - SSO allows users to login into one station and access all other connected stations without having to re-authenticate
- Check out the free [Tridium University](#) module.

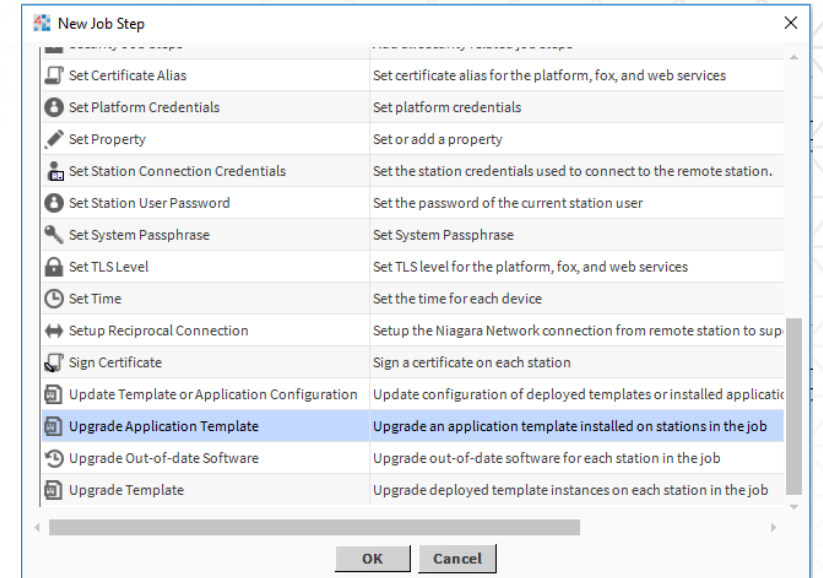
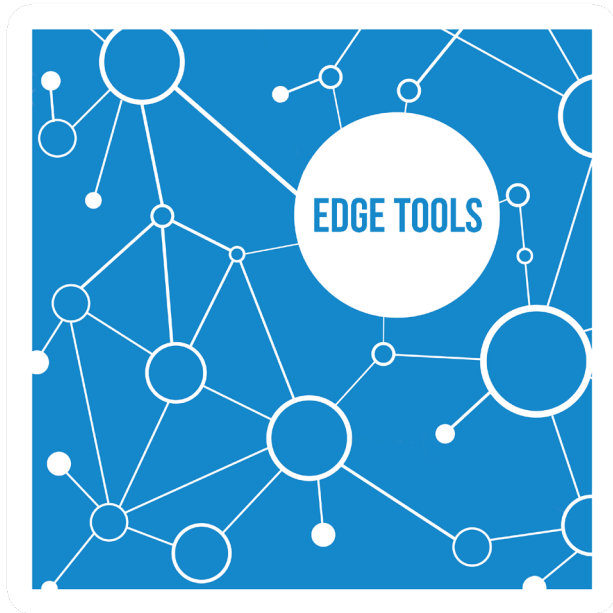
Enabling Cloud Connectivity



Reduce the time and complexity of integrating Niagara with cloud solutions with updated connectivity options.

- Updates to Niagara MQTT driver to support AWS (Amazon Web Services) Authentication.
- New JSON Toolkit to construct bespoke messages into required formats for cloud communication.

Facilitating Niagara at the Edge



Reduce time spent installing, commissioning, and configuring multiple Niagara devices with application templates and provisioning.

The latest updates to Edge Tools include the ability to upgrade installed application templates, flexibility in defining and configuring peer device and/or station proxies upon installation of an application template, and new provisioning steps.

Provisioning Step Evolution

4.4

- Backup Stations
- Copy Local File
- Copy Supervisor File
- Install Certificate
- Install Software
- Reboot
- Run Robot
- Update licenses
- Upgrade out of date software

4.6

- Deploy Template
- Generate Certificate
- Import Signed Certificate
- Set Certificate Alias
- Set Platform Credentials
- Set System Passphrase
- Set TLS Level
- Setup Reciprocal Connection
- Sign Certificate
- Upgrade Template

4.7

- Enable Bootstrap Mode
- Update Connections Using Niagara Network Discovery
- Update Connections Using Provisioning Station's DHCP Server
- Export Certificate Signing Request
- Install Application Template
- Rename Device Station
- Set Station User Password
- Set Time

4.8

- Add Station User
- Install Clean Distribution
- Remove Station User
- Set Property
- Set Station Connection Credentials
- Set Station User Password

4.9

- Configure Niagara IdP and SAML Scheme
- Update Template or Application Configuration
- Upgrade Application Template
- Upgrade Template

James Johnson Provisioning [Tridium Talk](#)

IT Operations Support



Facilitate compliance and enable modern services that need to communicate with the web by allowing secure connectivity behind corporate IT proxy servers. Niagara Proxy Service now supports HTTPS connections and digest authentication scheme!

Understanding Access to Niagara

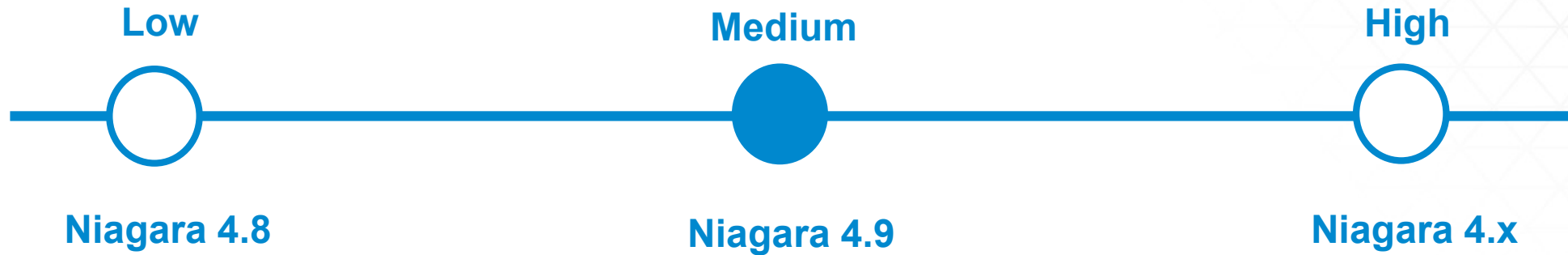


Understand who or what is logging into or changing security related settings on your Niagara instance with a [dedicated Security History Log](#).

Coupled with the Niagara Security Dashboard (4.8), this is a powerful tool for administrators and security professionals to ensure that their Niagara system is appropriately configured and compliant with security standards.

Securing Niagara - 3rd Party Module Signing

Default Verification Mode by Version



Verification Mode	Description
Low	Modules that are unsigned, untrusted, or have expired certificates will cause warnings but still function. Error if signed module modified after it was signed. Can be increased to Medium or High.
Medium	All modules must be signed by valid, trusted certificate (may be self-signed). Can be decreased to Low or increased to High
High	All modules must be signed with CA Certificate. Can be decreased to Medium.

Updated Infrastructure

Supported OS/Browser/DB (Added noted in bold)

OS, Browser, DB	Version
Red Hat Enterprise Linux	7.7, 8.1
Windows Server	10 (64bit), 2016, 2019
VMWare ESXi	6.7
Oracle Database	19c, 18c ... 12.2/12.1
MySQL Database	8
MS SQL Server Database	2016, 2017, 2019
Browsers (Current Rev)	Chrome, FireFox, Microsoft Edge
Mobile Browsers	Safari (iOS 12, 13), Chrome (8, 9, 10)

Keeping pace with advancing infrastructure to enable more efficient, long term support.

Deprecating OS/Browser/DB Support

OS, Browser, DB	Version
Red Hat Enterprise Linux	7.5, 7.6
Windows Server	7 (32/64), 8.1, 2012
Oracle Database	11g
MySQL Database	5.7
MS Sql Server Database	2012
Browsers	Internet Explorer 11, Opera
Mobile Browsers	Safari (iOS 10, 11), Chrome (Android 6, 7)
Java Web Start	N/A

Updated Resources | tridium university

Niagara 4.9 Feature Update Tutorials (FREE)

STATUS: Not Started | TYPE: Course | DURATION: 37m



This course will demonstrate the new features included in the 4.9 release of Niagara.



Trainings Included (3)

Utilizing IO-R Modules in Conjunction with Edge 10 and ACE

STATUS: Not Started | TYPE: Module | DURATION: 7m

Edge 10 now supports two IO-R-34 modules and allows control of both onboard and remote IO with ACE. Utilize the Edge 10 for more applications by enabling critical control of field equipment that require additional IO modules. License refresh required.



LAUNCH

Tag Based PX Bindings

STATUS: Not Started | TYPE: Module | DURATION: 9m

Create a graphical user interface (GUI) for your Niagara station based entirely on tags. Tag based PX bindings allow you to create graphics and assign them semantic tags from the dictionary of your choice once, and then reuse any number of times.



LAUNCH

Single Sign On with Niagara as an Identity Provider (IdP)

STATUS: Not Started | TYPE: Module | DURATION: 21m

Securely navigate Niagara Stations using Single Sign-On (SSO) with Niagara as the identity provider (IdP), instead of manually configuring and managing an external IdP. SSO allows users to login into one station and access all other connected stations via a browser without having to re-authenticate.



LAUNCH

Niagara 4 JSON Toolkit (AMER)

STATUS: Unassigned | TYPE: Event | DURATION: 1h



Trainings Included (1)

The JSON toolkit is a new module within Niagara 4.9 that provides bespoke JSON encoding of Niagara data, allowing new methods of cloud visualization and device connectivity in the wiresheet environment, without the need to code a bespoke solution each time. It also contains tools for parsing and handling of JSON messages incoming to the Niagara station. Certification: None | 1 hour Elearning | TRN-JSON-WBT | \$100 USD | eLearning Expiration: 60 days from purchase





<https://www.tridium.com/en/resources/events>

Leveraging provisioning in an enterprise Niagara system

James Johnson walks through how to perform tasks such as disaster recovery backups, managing station and platform users, managing TLS certificates, updating security settings, configuring NTP, deploying templates and more.



[Q & A Document](#)

[Download Niagara 4.8 Example Bog File](#) (password: tridium) Copy the partial bog file into your own station to view the Provisioning Jobs in the same way that was shown in the webinar.

Enhanced Graphics with Tag Based Visualization

Product Manager Stephen Holicky and Advanced Software Engineer Eric Anderson will provide an overview on how to create new, and edit existing, Niagara graphics to incorporate tag based PX bindings. While reviewing several examples, the team will discuss how to automatically convert existing Niagara graphics to utilize tags, the required syntax when manually creating tag-based graphics and other time-saving recommendations that will quickly help you get the job done right.



[Q & A Document](#)



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4.9

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Articles

15+ Results • Sorted by **Relevance** ▾

Niagara 4.9 Upgrade Considerations

000025194 • Approved • Last Modified

Niagara 4.9 Release Notes

000025205 • Approved • Last Modified

Issues fixed in Niagara 4.9 Release Release Notes not assigned a module HAREMB-1124 Canceling... on previous versions that will be upgrading to 4.9 and are experiencing similar alarm count

Niagara 4.9 Breaking Changes

000025193 • Approved • Last Modified

fox communication) Niagara 4.9 introduces multiple breaking changes. Links to the knowledge

Niagara 4.9+ and IT Network Scanners

000025195 • Approved • Last Modified

organization, Niagara 4.9 introduces a number of changes intended to allow a Niagara based hardware



<https://www.youtube.com/user/TridiumInc/videos>

AX to Niagara 4 Trade Up Program



20% discount when replacing legacy AX hardware

Additional 10% discount when replacing AX platforms purchased after January 1, 2017.



*See <https://www.tridium.com/en/products-services/niagara-ax> and [Tridium Talk](#) for further details

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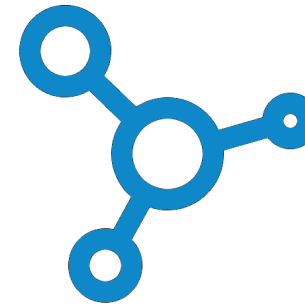
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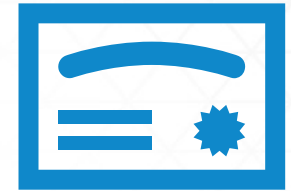
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